

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY CONTROL MINOR PERMIT

Permit No. AQ0831MSS01
Rescinds Permit No. 9771-AC012

Date – Final July 22, 2005

The Department of Environmental Conservation, under the authority of AS 46.03, AS 46.14, 6 AAC 50, 18 AAC 15 and 18 AAC 50, issues this Air Quality Control Minor Permit to:

Owner(s): North Slope Borough

Operator: North Slope Borough
P.O. Box 69
Barrow, AK 99723

Stationary Source: Barrow Thermal Oxidation System

Location: Latitude 71°315' North; Longitude 156°721' West

Physical Address: 3490 Stevenson Street
Barrow, Alaska 99723

Permit Contact: Kent Grinage

This minor permit authorizes 1) revisions to permit terms and conditions of construction permit No. 9771-AC012; 2) owner requested limits to avoid stationary source classification as a hazardous air pollutant major stationary; and 3) satisfies the obligation to obtain a minor permit to operate an incinerator; in accordance with the terms and conditions of this permit, and as described in the original permit application and subsequent application supplements.

_____/S/_____
John F. Kuterbach, Manager
Air Permits Program

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List of Abbreviations Used in this Permit

ADEC.....	Alaska Department of Environmental Conservation
AS	Alaska Statutes
ASTM	American Society for Testing and Materials
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
dscf.....	Dry standard cubic foot
EPA	US Environmental Protection Agency
gr./dscf	grain per dry standard cubic foot (1 pound = 7000 grains)
HAPs	Hazardous Air Pollutants or Hazardous Air Contaminants [<i>HAPs</i> as defined in AS 46.14.990(14)]
ID	Source Identification Number
MR&R.....	Monitoring, Recordkeeping, and Reporting
NO _x	Nitrogen Oxides
NSPS	Federal New Source Performance Standards [<i>NSPS</i> as contained in 40 C.F.R. 60]
O ₂	Oxygen
PM-10	Particulate Matter less than or equal to a nominal ten microns in diameter
ppm	Parts per million
ppmv, ppmvd	Parts per million by volume on a dry basis
PTE	Potential to Emit
SIC.	Standard Industrial Classification
SO ₂	Sulfur dioxide
TPY	Tons per year
VOC	volatile organic compound [<i>VOC</i> as defined in 18 AAC 50.990(103)]
wt%	weight percent

Section 1. Emission Unit Specific Requirements

This emission units listed in Table 1 have specific monitoring and recordkeeping, or reporting conditions in this permit. Emission unit description and ratings are given for identification purposes only.

Table 1 – Emission Unit Inventory

ID	Unit Name	Unit Description	Rating/size	Installation Date
1	Incinerator, Thermal Oxidation System Natural Gas-fired*	Entech MDL 100	2,500 pound/hour waste (30 ton/day)*	Commenced Construction February 27, 1996
2	Boiler No. 1 Natural Gas-fired	Burnham PF-521	4.3 MMBtu/hr	1994
3	Boiler No. 2 Natural Gas-fired	Burnham PF-521	4.3 MMBtu/hr	1994
4	Heater/Burner On Spec Used Oil-fired	Black Gold Stainless 2000 Model 400	0.34 MMBtu/hr	2002
5	Emergency Generator Natural Gas-fired	Cummins/Onan CSG 6491- 6005-A	60 hp	1994
6	Suppression Pump Engine Diesel Fuel-fired	Clarke/Detroit Diesel/Allison	60 hp	1998
7	Hot Water Heater Natural Gas-fired	PowerFlame Burner Model J1SA-10	0.6 MMBtu/hr	1994

* The Permittee may use natural gas, No. 1, No. 2, or on-specification used oil fuel for the auxiliary burners in primary chamber No. 1; primary chamber No. 2 and the secondary combustion chamber of the incinerator use only natural gas fuel.

Section 2. *Emission Fees*

- 1. Assessable Emissions.** The Permittee shall pay to the Department an annual emission fee based on the source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air contaminant that the source emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of

- 1.1 the source's assessable potential to emit of 77 TPY; or
- 1.2 the source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12-month period approved in writing by the Department, when demonstrated by
 - a. an enforceable test method described in 18 AAC 50.220;
 - b. material balance calculations;
 - c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or
 - d. other methods and calculations approved by the Department.

- 2. Assessable Emission Estimates.** Emission fees will be assessed as follows:

- 2.1 no later than March 31 of each year, the Permittee may submit an estimate of the source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or
- 2.2 if no estimate is received on or before March 31 of each year, emission fees for the department's next fiscal year (July 1- June 30) will be based on the potential to emit set forth in condition 1.1.

Section 3. State Emissions Standards

Incinerator, Unit ID 1

- 3. Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, through the exhaust of Unit ID 1 to reduce visibility by any of the following:

- a. more than 20 percent for a total of more than three minutes in any one hour¹;
- b. more than 20 percent averaged over any six consecutive minutes².

3.1 For Unit ID 1, monitor, record and report in accordance with Section 5.

- 4. Particulate Matter Emissions.** The Permittee shall not cause or allow particulate matter (PM) emissions in concentrations greater than 0.08 grains per cubic foot of exhaust gas corrected to 12 percent CO₂ and standard conditions, averaged over three hours.

4.1 Monitoring:

- a. At least once in every 24 months after the effective date of this permit, conduct a particulate matter source test on the exhaust stack emissions in accordance with Section 8. Conduct the test with the incinerator operating at peak capacity and, if used oil will be burned within the next 24 months after the test date, burning used oil fuel.
- b. Compute the PM concentration corrected to 12% CO₂ for each source test run using the following equation:

$$c_{12} = c_s(12 \div \%CO_2)$$

Where:

c_{12} is the particulate matter concentration, corrected to 12 percent CO₂, in units of gr/dscf.

c_s is the particulate matter concentration measured during the source test run in units of gr/dscf.

$\%CO_2$ is the percent CO₂ concentration on a dry basis measured during the source test run.

¹ For purposes of this permit, the “more than three minutes in any one hour” criterion in this condition and conditions 3.a will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/03/02 is adopted by the U.S. EPA.

² The six-minute average standard is enforceable only by the state until 18 AAC 50.050(a), dated May 3, 2002, is approved by EPA into the SIP at which time this standard becomes federally enforceable.

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- c. During particulate matter source tests,
 - (i) monitor visual emissions in accordance with 40 C.F.R. 60, Appendix A-4, Method 9;
 - (ii) monitor and record the secondary chamber temperatures, and
 - (iii) record waste charging rates.

4.2 Reporting:

- a. Submit the source test results in accordance with condition 33. Report the information required by condition 4.1c in the source test report. If source test results indicate that the PM concentrations exceed the standard set forth in condition 4, report the results in accordance with condition 39.

Industrial Processes and Fuel-Burning Equipment, Unit IDs 2 through 7

- 5. **Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Unit ID(s) 2 through 7 to reduce visibility through the exhaust effluent by any of the following:
 - a. more than 20 percent for a total of more than three minutes in any one hour³;
 - b. more than 20 percent averaged over any six consecutive minutes⁴.
- 6. **Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from Unit ID(s) 2 through 7 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.
 - 6.1 For Unit ID 4, blend used oil in the ratio of no less than 1 part used oil to 0.1 parts distillate fuel. Monitor and record the blend ratio each time used oil is added to the fuel tank and submit the records upon request.
- 7. **Sulfur Compound Emissions.** In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from Unit IDs 2 through 7 to exceed 500 ppm averaged over three hours.

For fuel oil, Unit ID 4 and 6

- 7.1 The fuel oil fired in Unit IDs 4 and 6 shall have a sulfur content equal to or less than 0.5% by weight:
 - a. keep receipts that specify fuel grade and amount; or

³ See footnote 1

⁴ See footnote 2

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- b. test a representative sample of the fuel for sulfur content at least once per year;
or
 - c. obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.
- 7.2 Fuel testing under condition 7.1b must follow an appropriate method listed in 18 AAC 50.035 or another method approved in writing by the Department.
- 7.3 The Permittee shall report as follows:
- a. If SO₂ emissions calculated under condition 1.1 exceed 500 ppm, the Permittee shall report under condition 39. When reporting under this condition, include the calculation under Section 12.
 - b. The Permittee shall include in the report required by condition 40:
 - (i) a list of the fuel grades received at the source during the reporting period;
 - (ii) for any grade with a maximum fuel sulfur content greater than 0.5 percent sulfur, the fuel sulfur content of each shipment; and

Section 4. Owner Requested Limits

Limit to Avoid Classification as a HAP Major Source

8. The Permittee shall limit HCl emissions from Unit ID 1 to no more than 9.0 tons per 12 consecutive month period to avoid source classification as HAP major.

- 8.1 Limit combusting hospital waste and/or medical/infectious waste in compliance with Condition 8 according to the following equation:

$$\sum_{i=1}^{i=12} \frac{(2.15 \text{ lb / ton})(MSW_i) + (33.5 \text{ lb / ton})(HMIW_i)}{2000} < 9.0$$

where: MSW = municipal solid waste charged to the incinerator in tons each month; and

HMIW = hospital waste and/or medical/infectious waste charged in tons each month.

- 8.2 Monitor and record the tons of MSW incinerated in Unit ID 1 from the weight of each batch incinerated.
- 8.3 Monitor and record the tons of HMIW incinerated in Unit ID 1 from the weight of each batch incinerated.
- 8.4 Calculate and record the HCl emissions on a monthly basis using the tons of MSW and HMIW incinerated each month using equation in condition 8.1.
- 8.5 Report the monthly and 12 consecutive month HCl emissions from Unit ID 1.
- 8.6 Report under condition 39 whenever the 12 consecutive month HCl emissions exceed 10 tons.

Limit to Avoid Source Subject to 40 CFR Part 62, Subpart HHH

9. The Permittee shall limit Unit ID 1 to combusting 10 percent by weight of HMIW with other fuels or wastes (e.g. coal, municipal solid waste) measured on a calendar quarter basis according to the co-fired combustor exemption under 40 CFR Part 62, Subpart HHH.
- 9.1 Monitor and record the quarterly total tons of municipal solid waste and all other fuels incinerated in Unit ID 1.
- 9.2 Record the quarterly total tons of hospital waste and/or medical/ infectious waste incinerated in Unit ID 1 from monthly total in condition 8.3.

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- 9.3 Record on a calendar quarter basis the weight percentage of HMIW combusted as well as the weight of all other fuels and wastes combusted in Unit ID 1. These records shall reflect that the unit continues to meet the definition of co-fired combustor in 40 CFR 62.14490.

PM Limit to Avoid an Ambient Air Quality Impact Analysis

- 10.** To limit PM-10 emissions from the source to less than 15 tpy and avoid the requirement to submit an ambient air quality impact analysis under 18 AAC 50.502(c)(1), the Permittee shall combust no more than 294,000 gallons of fuel oil per 12 consecutive month period in Unit ID 1.
- 10.1 For Unit ID 1, report in the semi-annual report required by condition 40 the consumption of fuel oil, in gallons, for each 12 consecutive month period.
- 10.2 For Unit ID 1, report per condition 39 when the gallons of fuel oil for each 12 consecutive month period exceeds the limit of condition 10.

Section 5. Visible Emissions and PM Monitoring, Recordkeeping and Reporting

Unit ID 1

11. Visible Emissions Monitoring. The Permittee shall observe the exhaust of unit ID 1 for visible emissions using either the Method 9 Plan under condition 11.1 or the Smoke/No-Smoke Plan under condition 11.2. The Permittee may change visible-emissions plans for the Unit at any time unless prohibited from doing so by condition 11.3.

11.1 Method 9 Plan. For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

- a. Monitoring Frequency. Observe the exhaust for 18 consecutive minutes once every 30 days or within 14 calendar days after changing from the Smoke/No-Smoke Plan of condition 11.2, whichever is later.

11.2 Smoke/No Smoke Plan. Observe the exhaust for the presence or absence of visible emissions, excluding condensed water vapor.

- a. Monitoring Frequency. Observe emissions at least once in every calendar month that a Unit operates.
- b. Smoke Observed. If smoke is observed, either begin the Method 9 Plan of condition 11.1 or perform the corrective action required under condition 11.3.

11.3 Corrective Actions Based on Smoke/No Smoke Observations. If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke Plan of condition 11.2, then the Permittee shall either follow the Method 9 plan of condition 11.1 or

- a. initiate actions to eliminate smoke from the Unit within 24 hours of the observation;
- b. keep a written record of the starting date, the completion date, and a description of the actions taken to reduce smoke; and
- c. after completing the actions required under condition 11.3a,
 - (i) take Smoke/No Smoke observations in accordance with condition 11.2
 - (A) at least once per day for the next seven operating days and until the initial 30 day observation period is completed; and
 - (B) continue as described in condition 11.2a; or

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- (ii) if the actions taken under condition 11.3a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of condition 11.3c(i)(A), then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan; after observing smoke and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke and restart the Smoke/No Smoke Plan under condition 1.1a.

12. Visible Emissions Recordkeeping. The Permittee shall keep records as follows:

12.1 If using the Method 9 Plan of condition 11.1

- a. the observer shall record
 - (i) the name of the source, emissions unit and location, source type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet in Section 11;
 - (ii) the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate) on the sheet at the time opacity observations are initiated and completed;
 - (iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;
 - (iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation in Section 11; and
 - (v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period;
- b. to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;
- c. calculate and record the highest 18-consecutive-minute averages observed.

12.2 If using the Smoke/No Smoke Plan of condition 11.2, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

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- a. the date and time of the observation;
 - b. whether visible emissions are present or absent in the exhaust;
 - c. a description of the background to the exhaust during the observation;
 - d. if the source starts operation on the day of the observation, the startup time of the source;
 - e. name and title of the person making the observation; and

13. Visible Emissions Reporting. The Permittee shall report visible emissions as follows:

13.1 include in each visible emissions report:

- a. which visible-emissions plan of condition 11 was used for each source; if more than one plan was used, give the time periods covered by each plan;
- b. for each source under the Method 9 Plan:
 - (i) copies of the observation results (i.e. opacity observations) for each source that used the Method 9 Plan, except for the observations the Permittee has already supplied to the Department; and
 - (ii) a summary to include:
 - (A) number of days observations were made;
 - (B) highest six-minute average observed; and
 - (C) dates when one or more observed six-minute averages were greater than 20 percent;
- c. for each source under the Smoke/No Smoke Plan, the number of days that Smoke/No Smoke observations were made and which days, if any, that smoke was observed; and
- d. a summary of any monitoring or record keeping required under conditions 11 and 12 that was not done;

13.2 report under condition 39:

- a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and
- b. if any monitoring under condition 11 was not performed when required, report within three days of the date the monitoring was required.

Section 6. Stationary Source-Wide Requirements

14. Reasonable Precaution to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

14.1 Permittee shall prevent incinerator ash from becoming airborne during storage, transportation, and disposal, before final cover at the disposal site.

14.2 Permittee shall handle and transport incinerator ash wet or in sealed containers, and immediately clean up all ash spilled during ash handling and transfer.

a. The wetting process shall not result in the production of large volumes of dust (from steam evolution) that cannot be contained. If material is to be transferred to an open stockpile using a front-end loader or similar equipment, the loader's bucket shall be loaded with the minimum disturbance of the stockpile from which it is loading. An alternate method may be proposed for the department's approval. When dumping into a stockpile or onto the ground, the lowest part of a loaded bucket shall be in contact with the stockpile or ground because this minimum drop distance generates the least dust.

b. Stockpiles must be covered adequately to prevent fugitive emissions. The covering can be ice, snow, a weighted down tarpaulin, or fine-free aggregate.

14.3 Every temporary ash storage area within the incinerator source shall be lined with an impervious material and barricaded, and the Permittee shall store ash in sealed supersacks or other suitable containers.

14.4 The Permittee shall keep records of

a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and

b. any additional precautions that are taken

(i) to address complaints described in condition 14.4a or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

14.5 The Permittee shall report according to condition 20.5 and 20.6.

Section 7. Generally Applicable Requirements

- 15. Good Air Pollution Control Practice.** The Permittee shall do the following for Source ID(s) 1 through 7:
- 15.1 perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
 - 15.2 keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and
 - 15.3 keep a copy of either the manufacturer's or the operator's maintenance procedures.
- 16. Operating and Maintenance.** The Permittee shall maintain and operate Unit ID 1 in accordance with the standard operating and maintenance procedures developed for the incinerator to provide optimum control of air pollutant emissions during all operating periods.
- 17. Dilution.** The Permittee shall not dilute emissions with air to comply with this permit.
- 18. Odors.** Permittee shall ensure that animal carcasses or other putrescible materials be handled in a manner that prevents odorous emissions before incineration.
- 19. Hazardous Waste.** The Permittee shall not incinerate any hazardous waste that is identified or listed under the regulations in 40 CFR 261.
- 20. Air Pollution Prohibited.** No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.
- 20.1 If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to condition 39.
 - 20.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the facility, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of condition 20.
 - 20.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if
 - a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the facility have caused or are causing a violation of condition 20; or

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- b. the Department notifies the Permittee that it has found a violation of condition 20.

20.4 The Permittee shall keep records of:

- a. the date, time, and nature of all emissions complaints received;
- b. the name of the person or persons that complained, if known;
- c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of condition 20; and
- d. any corrective actions taken or planned for complaints attributable to emissions from the facility.

20.5 With each facility operating report under condition 40, the Permittee shall include a brief summary report which must include:

- a. the number of complaints received;
- b. the number of times the Permittee or the Department found corrective action necessary;
- c. the number of times action was taken on a complaint within 24 hours; and
- d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

20.6 The Permittee shall notify the Department of a complaint that is attributable to emissions from the facility within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

21. Carbon Monoxide (CO) Limits. The Permittee shall not cause or allow the hourly average of CO concentration emitted from Unit ID 1 to exceed 100 ppm by volume. Compliance with condition 21 is assured by maintaining the temperature and oxygen limits in conditions 22 and 23.

22. Pre-Heating and Burn-Down. Prior to adding material to Unit ID 1, the Permittee shall pre-heat the secondary combustion chamber temperature to the minimum temperature of 1650°F and maintain the temperature of the secondary combustion chamber to no less than 1600°F except during startup, cool-down, and shutdown.

22.1 The Permittee shall install, operate, maintain, and observe a temperature monitoring device at the exit of the primary combustion chambers and within the secondary combustion chamber.

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- a. During operation and burn-down the Permittee shall observe the temperature of the primary and secondary combustion chambers.
 - b. Permittee shall continuously monitor and record primary and secondary combustion chamber temperatures with a thermocouple accurate to within 50 °F during operation and burn-down.
 - c. Install and monitor an audible alarm that will sound if the temperature drops below 1,600°F, except during startup, cool-down, and shutdown.
 - d. Monitor and record the five-minute average combustion zone temperature of Unit ID 1.
 - e. Follow the thermocouple manufacturer's calibration recommendations.
- 22.2 Report under condition 39 whenever the five-minute average secondary combustion zone temperature of Unit ID 1 is below 1600°F, except during startup, cool-down, and shutdown.
- 22.3 Report in the operating report required under condition 40 the lowest monthly 5-minute average secondary combustion chamber temperature of Unit ID 1 during the reporting period.
- 23. Oxygen (O₂) Limits.** The Permittee shall maintain the secondary chamber oxygen (O₂) content greater than or equal to 1.5% using an O₂ analyzer with performance specifications comparable to 40 CFR Subpart B.
- 23.1 Monitor and record the output signals from the secondary chamber O₂ analyzer.
- 23.2 Install and monitor an audible alarm that will sound if the O₂ drops below 1.5%.
- 23.3 Report under condition 39 whenever the secondary chamber O₂ content drops to less than 1.5% for more than 5 consecutive minutes.
- 24. Incinerator Capacity.** The Permittee shall operate Unit ID 1 at a capacity no greater than 30 tons per day.
- 24.1 Monitor and record in accordance with Condition 8.2 and 8.3.
- 24.2 Report under condition 39 whenever the total number of tons that Unit ID 1 incinerates in any day exceeds 30 tons.

Section 8. General Source Testing and Monitoring Requirements

- 25. Requested Source Tests.** In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.
- 26. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing.
- 26.1 at a point or points that characterize the actual discharge into the ambient air; and
- 26.2 at the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.
- 27. Reference Test Methods.** The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:
- 27.1 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9 and may use the form in Section 11 to record data.
- 27.2 Source testing for emissions of total particulate matter must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.
- 27.3 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.
- 28. Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).
- 29. Test Exemption.** The Permittee is not required to comply with conditions 31, 32, and 33 when the exhaust is observed for visible emissions by Method 9 Plan (condition 11.1) or Smoke/No Smoke Plan (condition 11.2)

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- 30. Test Deadline Extension.** The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.
- 31. Test Plans.** Except as provided in condition 29, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the source will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under condition 25 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.
- 32. Test Notification.** Except as provided in condition 29, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.
- 33. Test Reports.** Except as provided in condition 29, within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in condition 35. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.
- 34. Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in condition 4, the three-hour average is determined using the average of three one-hour test runs.

Section 9. General Recordkeeping, Reporting, and Compliance Certification Requirements

- 35. Certification.** The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted source following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal.
- 36. Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall send reports, compliance certifications, and other documents required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician.
- 37. Information Requests.** The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.
- 38. Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:
- 38.1 copies of all reports and certifications submitted pursuant to this section of the permit; and
 - 38.2 records of all monitoring required by this permit, and information about the monitoring including:
 - a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;
 - b. sampling dates and times of sampling or measurements;
 - c. the operating conditions that existed at the time of sampling or measurement;
 - d. the date analyses were performed;
 - e. the location where samples were taken;
 - f. the company or entity that performed the sampling and analyses;

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- g. the analytical techniques or methods used in the analyses; and
 - h. the results of the analyses.

39. Excess Emissions and Permit Deviation Reports.

39.1 Except as provided in condition 20, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

- a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report:
 - (i) emissions that present a potential threat to human health or safety; and
 - (ii) excess emissions that the Permittee believes to be unavoidable;
- b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;
- c. report all other excess emissions and permit deviations:
 - (i) within 30 days of the end of the month in which the emissions or deviation occurs, except as provided in conditions 39.1c(ii) and 39.1c(iii);
 - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under condition 39.1c(i); and
 - (iii) for failure to monitor, as required in other applicable conditions of this permit.

39.2 When reporting excess emissions, the Permittee must report using either the Department's on-line form, which can be found at <http://www.dec.state.ak.us/air/ap/docs/eeform.pdf> or if the Permittee prefers, the form contained in Section 12 of this permit. The Permittee must provide all information called for by the form that is used.

39.3 When reporting a permit deviation, the Permittee must report using either the Department's on-line form, which can be found at <http://www.dec.state.ak.us/air/ap/docs/eeform.pdf> or if the Permittee prefers, the form contained in Section 12 of this permit. The Permittee must provide all information called for by the form.

39.4 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

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- 40. Operating Reports.** During the life of this permit, the Permittee shall submit to the Department one original and one copy of an operating report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.
- 40.1 The operating report must include all information required to be in operating reports by other conditions of this permit.
- 40.2 The operating report must include a summary of excess emissions and permit deviations during the reporting period.
- 41. Periodic Affirmation.** The Permittee shall provide to the Department a periodic affirmation that the stationary source is still accurately described by the application and minor permit, and whether the owner or operator has made changes that would trigger the requirement for a new permit under 18 AAC 50.
- 42. Operating Conditions.** The Permittee shall develop and implement standard operating and maintenance procedures for the incinerator. Permittee shall keep a copy of the procedures available at a location within the stationary source that is readily accessible to operators of the equipment and to authorized representatives of the Department.
- 43. Storage.** The Permittee shall ensure that all materials to be incinerated in Unit ID 1 are stored in a secured area in such a way as to prevent access by untrained personnel, the general public, and animals.
- 44. Training.** The Permittee shall ensure that each operator obtains training and/or certification such as that provided by the American Society of Mechanical Engineers (ASME) or the U.S. Environmental Protection Agency (EPA), Hospital Incinerator Operator Training course No. EPA-450/3-89-003. This training shall include operator familiarity with the EPA or ASME course materials and attendance at any instructional course which becomes available at a reasonably accessible location.

Section 10. Conditions Describing the Effect of this Permit

- 45.** The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for:
- 45.1 an enforcement action; or
 - 45.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or
- 46.** It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.
- 47.** Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.
- 48.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are:
- 48.1 included and specifically identified in the permit; or
 - 48.2 determined in writing in the permit to be inapplicable.
- 49.** The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- 50.** The permit does not convey any property rights of any sort, nor any exclusive privilege.
- 51.** The Permittee shall allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to:
- 51.1 enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
 - 51.2 have access to and copy any records required by the permit;
 - 51.3 inspect any source, equipment, practices, or operations regulated by or referenced in the permit; and
 - 51.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

Section 11. Visible Emissions Forms

Visible Emissions Field Data Sheet

Certified Observer: _____

Company &
Facility: _____

Location: _____

Test No.: _____

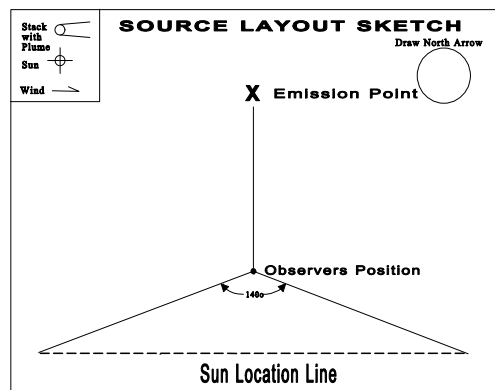
Date: _____

Source: _____

Production Rate/Operating Rate: _____

Unit Operating Hours: _____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location					
Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions					
Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description:					
Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Page ____ of ____

Company & Facility _____ Certified Observer _____

Test Number _____ Clock time _____

[illegible]

Additional information:

Observer Signature and Date

Certified By and Date

Duration of Observation Period (minutes) _____ Duration Required by Permit (minutes) _____
 Number of Observations _____ Highest Six –Minute Average Opacity (%) _____
 Number of Observations exceeding 20 % _____
 In compliance with three-minute aggregate opacity limit? (Yes or No) _____
 In compliance with six-minute opacity limit? (Yes or No) _____

Set Number	Time Start—End	Opacity	
		Sum	Average

Section 12. ADEC Notification Form

Fax this form to: (907) 451-2187 Telephone: (907) 451 5173

North Slope Borough

Company Name

North Slope Borough Barrow Thermal Oxidation System

Facility Name

Reason for notification:

☐ **Excess Emissions**

If you checked this box

Fill out section 1

☐ **Other Deviation from Permit Condition**

If you checked this box

fill out section 2

When did you discover the Excess Emissions or Other Deviation:

Date: __/__/__ Time:__:__

Section 1. Excess Emissions

(a) Event Information (Use 24-hour clock):

	START Time: (hr:min):	END Time:	Duration
Date: _____	_____:	_____:	_____:
Date: _____	_____:	_____:	_____:
		Total:	_____:

(b) Cause of Event (Check all that apply):

<input type="checkbox"/> START UP	<input type="checkbox"/> UPSET CONDITION	<input type="checkbox"/> CONTROL EQUIPMENT
<input type="checkbox"/> SHUT DOWN	<input type="checkbox"/> SCHEDULED MAINTENANCE	<input type="checkbox"/> OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

(c) Emission Units (EU) Involved:

Identify each emission unit involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

EU ID No.	Emission Unit Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____

(d) Emission Limit Potentially Exceeded

Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.

Permit Condition	Limit	Emissions Observed
_____	_____	_____
_____	_____	_____

(e) Excess Emission Reduction:

Attach a description of the measures taken to minimize and/or control emissions during the event.

(f) Corrective Actions:

Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.

(g) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?

☐ YES ☐ NO

Do you intend to assert the affirmative defense of 18 AAC 50.235?

☐ YES ☐ NO

Section 2. Other Permit Deviations

(a) Emission Units (EU) Involved:

Identify each emission unit involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

EU ID No.	Emission Unit Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(b) Permit Condition Deviation:

Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.

Permit Condition	Potential Deviation
_____	_____
_____	_____
_____	_____

(c) Corrective Actions:

Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name:

Signature:

Date: